

Response to Office Action
Page 2 of 6

Atty. Dkt. SAR/14182A
Serial No. : 10/783,844

REMARKS

In the April 22, 2005 Office Action, the Examiner allowed Claims 1-13, 19-37 and 48; rejected Claims 14, 16 and 38-41 and objected to Claims 15, 17, 18 and 42-47. By this Response, all claims continue unamended and arguments refuting the Examiner's positions are provided. Applicant gratefully acknowledges the allowance of Claims 1-13, 19-37 and 48. In view of the following discussion, the Applicants submit that none of the claims now pending in the application are anticipated or obvious under the respective provisions of 35 U.S.C. §102 and §103. The Applicants request that the Examiner enter this Response and reconsider the application.

REJECTIONS

Rejection of claims under 35 U.S.C. § 102

The Examiner has rejected claims 38-41 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,274,262 issued December 28, 1993 to Avery (hereinafter "Avery"). The Applicants respectfully traverse the Examiner's rejection. Specifically, the Applicants respectfully offer that the Examiner has not properly identified each of the claimed elements as arranged in independent claim 38 so as to establish the *prima facie* case of anticipation.

"Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim" (Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co., 730 F.2d 1452, 221 USPQ 481, 485 (Fed. Cir. 1984) (citing Connell v. Sears, Roebuck & Co., 722 F.2d 1542, 220 USPQ 193 (Fed. Cir. 1983)) (emphasis added)). Avery fails to disclose each and every element of the claimed invention, as arranged in the claim.

The Examiner first identifies an SCR (in the Abstract and in FIG. 8 of Avery) for coupling between a supply line and a ground line. Next, the Examiner identifies a trigger device for coupling from the supply line to a second gate defined by an N-well of

Response to Office Action
Page 3 of 6

Atty. Dkt. SAR/14182A
Serial No. : 10/783,844

the SCR (at Col. 3, lines 61-63 of Avery). However, it is respectfully submitted that the item cited at this column and line is in fact the very same item first identified by the Examiner. That is, Col. 3, lines 60-65 of Avery recites, in part, "the arrangement of FIG. 1 functions as a protective device with 'SCR-type' behavior... when a certain trigger voltage is reached or exceeded... a low resistance path is provided between terminals 30 and 32 for limiting any voltage excursion." The only element discussed in this passage is the invention of Avery in general (the protective device) and not a subcomponent of same. An inspection of the descriptions of FIGs. 1 and 8 in Avery's Brief Description of the Drawings Section further reveals this fact: "FIG. 1 shows...an embodiment of the invention" and FIG. 8 is a schematic circuit diagram showing the protection circuit of the present invention...". That is, no trigger device as claimed in the subject invention has been identified in Avery. Accordingly, the second item identified by the Examiner is nothing more than another identification of the first item.

The Examiner subsequently identifies an N-well resistor for coupling between the second gate and the supply line at Col. 4 lines 6-10 and a shunt resistor for coupling between the second gate and the supply line at Col. 4 lines 13-15, 19-22. However, it is respectfully submitted that the items cited by the Examiner are not the same as the arranged claim elements. Specifically, the shunt resistor that the Examiner refers to is a shunt resistor for transistor Q2 of the SCR whereas the N-well resistor is in fact resistor R1 for transistor Q1 of the SCR. Close inspection of FIG. 2 while reading Col. 4, lines 3-20 confirms this identification. The shunt resistor identified by the Examiner (R2) is not for coupling between the second gate and the supply line because if it was, it would have to be in parallel to the N-well resistor R1 which is plainly not taught by Avery. Accordingly, the fourth item identified by the Examiner is not a proper claim element or in the proper arrangement with respect to other claim elements of the subject invention.

As such, Avery does not teach or disclose all of the elements of Claim 38 as arranged in the claim; thus, Avery does not anticipate the subject invention as claimed. Therefore, the Applicants submit that independent claim 38 is not anticipated and fully satisfy the requirements of 35 U.S.C. §102 and is patentable thereunder. Furthermore, claims 39-41 depend directly from independent claim 38 and recites additional

Response to Office Action
Page 4 of 6

Atty. Dkt. SAR/14182A
Serial No. : 10/783,844

limitations thereof. As such and at least for the same reasons as discussed above, the Applicants submit that the dependent claims are also not anticipated and fully satisfy the requirements of 35 U.S.C. §102 and are patentable thereunder. Therefore, the Applicants respectfully request that the Examiner's rejection be withdrawn.

Rejection of Claims under 35 U.S.C. §103

The Examiner has rejected claims 14 and 16 under 35 U.S.C. §103 as being unpatentable over US Patent No. 6,850,397 issued February 1, 2005 to Russ et al in view of US Patent No. 5,541,801 issued July 30, 1996 to Lee et al, (hereinafter "Russ" and "Lee" respectively). The Applicants respectfully traverse the Examiner's rejection.

The test under 35 U.S.C. §103 is not whether an improvement or a use set forth in a patent would have been obvious or non-obvious; rather the test is whether the claimed invention, considered as a whole, would have been obvious. Jones v. Hardy, 110 USPQ 1021, 1024 (Fed. Cir. 1984) (emphasis added). Moreover, the invention as a whole is not restricted to the specific subject matter claimed, but also embraces its properties and the problem it solves. In re Wright, 6 USPQ 2d 1959, 1961 (Fed. Cir. 1988) (emphasis added).

Russ and Lee either alone or in combination fail to teach or suggest the Applicants' invention as a whole. Applicants respectfully offer that the Examiner has not properly applied the combination of Russ and Lee so as to establish the *prima facie* case of obviousness. Specifically, the portion of Lee identified by the Examiner has not been properly interpreted so as to offer a teaching or suggestion of either the first plurality of P+ regions for forming an emitter of a PNP transistor or an SCR or a first plurality of N+ regions for forming a drain contact of a GGNMOS transistor for coupling to a supply line of an IC. The first plurality of P+ regions in Lee (570 of FIG. 3) is discussed at Col. 7, lines 46-51 of Lee as part of layers and regions that form a third gate triggering circuit 310 for LVGTSCR 30. This in fact is a completely different and separate component from the actual SCR device (320 of FIG. 1). As such, it is not possible for the P+ regions identified by the Examiner in Lee to be part of an SCR as claimed in the subject invention. Each of the SCRs in Lee (items 10, 20 and 30) are

Response to Office Action
Page 5 of 6

Atty. Dkt. SAR/14182A
Serial No. : 10/783,844

discretely formed (by inspection of FIGs 1 and 3 and the accompanying written description) and separate from the triggering circuits (110, 210 and 310 respectively). A similar argument extends to the first plurality of N+ regions in Lee (480 of FIG. 3). Specifically, these regions are discussed at Col. 7, lines 24-29 of Lee as part of layers and regions that form a second gate triggering circuit 210 for LVGTSCR 20. As such, it is not possible for the N+ regions identified by the Examiner in Lee to be part of a GGNMOS transistor for coupling to the supply line of an IC as claimed in the subject invention. Since each of the alleged "plurality of regions" identified by the Examiner in Lee are not used in the same manner or perform the functions as those of the subject invention, the Examiner's motivation to combine ("... to adjust the trigger voltages of the ESD...") is not proper. That is, one skilled in the art would not be led by the cited references to use the alleged "plurality of regions" in the manner claimed.

Furthermore, the discrete SCRs of both Russ and Lee are not formed as slices of an SCR as presented in the subject invention. The advantages of forming SCR slices over prior art devices that do not provide such construction was presented by the Applicants at Paragraph 63 of the application. Russ and Lee in fact teach away from the subject invention by upholding non-slice SCR construction in their ESD devices.

Accordingly, the combination of Russ and Lee does not teach, disclose or suggest the invention of independent Claim 14; thus, the combination does not obviate the subject invention as claimed. As such, the Applicants submit that claim 14 is not obvious and fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder. Furthermore, claim 16 depends directly from independent claim 14 and recites additional features thereof. As such and at least for the same reasons as discussed above, the Applicants submit that the dependent claim is also not obvious and fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder. Therefore, the Applicants respectfully request that the Examiner's rejection be withdrawn.

Objections

Applicant acknowledges the Examiner's objections to Claim 15, 17, 18 and 42-47

Response to Office Action
Page 6 of 6

Atty. Dkt. SAR/14182A
Serial No. : 10/783,844


as being objected to for being dependent upon rejected base claims. However, no amendments to such objected to claims are provided at this time. Each of the above-identified objected to claims are dependent upon base claims whose rejections were properly and fully considered and responded to earlier in this Response. It is believed that once the rejections to the base claims are withdrawn, the objected to claims will be in allowable form. Should this not be the case, Applicants reserve the right to address these objections in a later Response.

Conclusion

Thus, the Applicants submit that Claims 1-48 are in condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring adverse final action in any of the claims now pending in the application, it is requested that the Examiner telephone Mr. Raymond R. Moser, Jr., Esq. at (732) 935-7100 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,



Raymond R. Moser, Jr., Attorney for Applicant
Registration No. 34,682
MOSER IP LAW GROUP
1040 Broad St.
Shrewsbury, NJ
Telephone: (732) 935-7100
Facsimile: (732) 935-7122